

X. *Descriptions of some new Aculeate Hymenoptera from Epirus.* By S. S. SAUNDERS, Esq.

[Read June 3rd, 1850.]

Fam. MUTILLIDÆ, Leach.

Genus MYRMOSA, Latr.

M. nigriceps.* (Pl. VI. fig. 1.)

Nigra, thorace rufo, anticè rectè truncato, angulis acutis; abdominis segmentis pilis albidis postice fimbriatis; alis obscuris; antennis pedibusque nigris. Mas.

Long. corp. $\frac{7}{12}$ — $\frac{2}{3}$ unc.

Exp. alar. 1 unc.

Habitat Nicopolin, prope Sinum Ambracicum, mense Junio capta.

Four specimens of this fine species were captured at intervals upon flowers in the same locality, towards the middle or end of June.

Fam. SCOLIADÆ, Leach.

Genus PSEUDOMERIA,† S. S. Saunders.

Alæ brevissimæ, thoraci ferè longitudine cœquales ad volandum ineptæ; anticarum margine apicali profundè sinuato, disci usque medium incisæ; cellulæ alarum orisque structura ut in genere Parameria Guérin (delincante Savignio); pedes mediocres, tibiæ calcaribus rectis, acutis.

* EDITOR'S NOTE. The name of this species should have been *nigripes*, but owing to a typographical error it appeared in the report of the proceedings of the June meeting, in the Zoologist, p. 2861, as *nigriceps*, which name, according to the laws of nomenclature, must be retained.

† In the original memoir upon this insect communicated to the Entomological Society, (an abstract of which has been published in the Proceedings for June, 1850, p. 16,) it was referred to the genus *Parameria* of Guérin; a more extended examination of the allied species than I had then had an opportunity of making has however rendered necessary the establishment of a new genus for its reception.

P. Græca. (Pl. V. fig. 3.)

Castanea, pilis albidis densè vestita; femoribus, tibiis, mandibularum apice costâque alarum, piceis; abdominis segmentis quatuor basalibus (præter petiolum) nigris; secundo tertioque fasciâ apicali, medio interruptâ, utrinque emarginatâ, lateribus haud attingenti, albâ notatis; alis obscuris; oculis nigris. Femina.

Long. corp. $\frac{5}{12}$ unc.

Exp. alar. $\frac{1}{3}$ unc.

Habitat in Epiro, apud Nicopolin, prope Sinum Ambracicum, mense Junio capta.

This insect—closely allied to *Meria*, from which it may be distinguished by its abbreviated wings, and by the absence of the small triangular cell which exists between the first and second submarginal cells in the former—approximates to the division which Guérin has suggested,* founded upon an insect figured by Savigny in the great work on Egypt,† and which the former characterizes as differing from *Meria* “par les cellules des ailes supérieures, par la forme des jambes, et de leurs épines terminales,” the wings being of ordinary dimensions and adapted for flight; whereas in the present species they are merely rudimental, employed (like those of the ostrich) as an adjunct to the legs during rapid circumvolutions along the ground or in close proximity thereto. The tibial armature also differs from that of Savigny’s undescribed species characterized as aforesaid; while the sinuation of the apical margin of the wing, not observable in the latter, is strongly developed in the former; the discoidal incision however, which is present also in *Meria*, being probably a constant character throughout the group.

The following tabular statement may serve to indicate the several divisions which have been proposed for *Meria* and its allies:—

* Dict. Pitt. d’Hist. Nat., tome 5, p. 575, 1837.

† Expéd. d’Egypte, Hymen. pl. 15, fig. 21.

1. Wings with a small triangular cell between }
the first and second submarginal cells. } MERIA, Illg.
2. Wings without the small triangular cell.
 - a Wings fitted for flying; spurs of hind
legs long, curved, and obtuse.
 - * Posterior tibiæ elongate-triangular; }
last joint of posterior tarsi scarcely }
smaller than the fourth. }
MACROMERIA,
Westw. MSS.
(Meria Klugii,
Westw. Proc.
Zool. Soc.
April 14, 1835.)
 - ** Posterior tibiæ globose; last joint }
of posterior tarsi very minute. }
PARAMERIA,
Guérin(loc. cit.)
6. Wings unfit for flight; spurs of hind }
legs moderate, straight, and acute. } PSEUDOMERIA.

Fam. EUMENIDÆ, Westwood.

Genus RAPHIGLOSSA,* Saunders.

Caput magnum subrotundum, subtùs obliquè complanatum, thoraci ferè latitudine coæquale. *Oculi* internè emarginati. *Mandibulæ* obtusæ apice transversè serrato. *Labium* longissimum, inter coxas acufornè retrorsùm, cum maxillis vix brevioribus, productum. *Clypeus* anticè excavatus, labium porrectum ad recipiendum et dirigendum. *Thorax* truncatoconvexus, medio vix dilatatus, subtùs canaliculatus. *Antennæ* thoraci ferè longitudine coequalis. *Alæ* anticæ cellulis cubitalibus quatuor, quarum secunda et tertia singulatim venam recurventem accipiunt; primâ magnâ, basi ampliori; secunda parvâ subtriangulari, lateribus anticè valdè approximatis, venam recurrentem recipiente; tertiâ subquadratâ, externè latiori, secundam recurrentem accipienti; apicali clausâ.

A. *Abdomen segmento basali elongato, infundibuliformi*: Mas,
antennarum apice integro: cellula radialis simplex.

* ῥαφις, acus; γλῶσσα, lingua.

Sp. 1. *Raphiglossa Eumenoides*. (Pl. VI. fig. 4, ♀.)

Elongata nigra, flavo-notata; labio usque abdominis petiolum producto; antennis testaceis, pedibus concoloribus, basi nigris; abdomine flavo-fasciato.

Long. corp. $\frac{2}{3}$ — $\frac{3}{4}$ unc.

Exp. alar. 1 unc.

Habitat in Epiro, prope Sinum Ambracicum, in rubis exsiccatis nidificans.

Descr. Nigra, nitida; maculâ frontali truncato-conicâ, alterâ parvâ utrinque pone oculos, aliaque magnâ utrinque ad angulos posticos, flavis; clypeo nigro, puncto utrinque (sæpè oblitterato) flavo; oculis luteis, latere externo nigro-striatis, vel punctis nigris circumcinctis; antennis testaceis, apicem versus obscuris, articulo basali anticè flavo; thoracis angulis anticis posticisque, alarum squamâ, maculâ trianglari subtùs alas, scutellique maculis quatuor, flavis; abdominis segmentis posticè flavo-fasciatis, secundi fasciâ infrâ continuâ; pedibus testaceis, plus minusve flavo-notatis, femoribus basi nigris; alis subhyalinis, anticè flavescentibus, propè apicem nebulosis. Femina.

Mas differt clypeo sulphureo, maculâ pone oculos obsoletâ; antennarum articulo basali breviori, robustiori, posticè nigro, apicalibus omninò testaceis; abdominis fasciis sex; coxis intermediis puncto magno flavo.

B. *Abdomen segmento basali campanulato: Mas, antennarum articulo apicali corneo, vix uncinato: cellula radialis appendiculata.*

Sp. 2. *Raphiglossa Odyneroides*. (Pl. VI. fig. 2, ♂; fig. 3, ♀.)

Nigra, flavo-notata; labio usque pectoris medium producto; pedibus flavis, basi nigris; abdomine flavo-fasciato; *maribus*, antennis nigris, subtùs flavescentibus; *feminis*, capite maximo, antennis flavescentibus, prope apicem obscuris.

Long. corp. 6—7 lin. ♂; $8\frac{1}{2}$ lin. ♀.

Habitat in Epiro cum præcedentibus.

Descr. Caput nigrum, clypeo, maculâ subcordatâ frontali, ante oculos vittâ minimâ, punctoque parvo ad angulos posticos, flavis; mandibulis concoloribus, apice piceo; antennis testaceis, supernè nigrostriatis, articulo basali robusto, anticè flavo, apicali testaceo, mucrone parvo nigro. Thorax angulis

anticis, alarum squamâ, maculâ rotundâ subtùs alas, scutelli utrinque puncto lineolâque marginali, flavis. Abdomen nigrum, segmenti basalis fasciâ posticâ latâ, ad latera anticè valdè productâ, flavâ; reliquorum margine postico flavo-fasciato, fasciis subtùs productis. Pedes flavi, basi nigri. Alæ subhyalinæ. Mas.

Femina differt staturâ majori, capite maximo, maculâ triangulari frontali, alterâ utrinque minori juxta oculos, alioque magno utrinque ad angulos posticos, flavis; antennarum articulo basali subgracili, arcuato, testaceo, anticè sulphureo, reliquis testaceis, prope apicem supernè obscurioribus; thoracis angulis anticis, alarum squamâ, maculâ rotundâ subtùs alas, scutelli fasciâ emarginatâ transversali lineolâque marginali posticè, flavis; abdominis segmento primo ferè omnino flavo, vittâ basali nigrâ disci usque medium retrò productâ, reliquis nigris, fasciâ apicali utrinque dilatatâ flavâ, 2^{da} 3^{ta}que subtùs margine postico flavo; pedibus flavis, basi nigris; alarum disco iridescenti, marginis antici dimidio apicali obscuriori, venis purpureis, areolis basalibus flavo-notatis.

These remarkable insects—closely resembling *Eumenes* on the one hand, and *Odynerus* on the other—although differing much in general aspect are nevertheless associated by several important characters; the peculiar veining of the wings being consistently maintained in connection with other evidences of structure and economy; both species exhibiting an extraordinary prolongation of the proboscis,* which is turned back and laid between the coxæ in a groove prepared for its reception along the under side of the thorax; both nidificating in briars, for which purpose this conformation of the lingua is obviously most appropriate; and the veining of the wings, although coinciding together in both, yet differing essentially from that of all other established genera of Diplopterous *Hymenoptera*, the second submarginal cell receiving only one recurrent nervure, and the third submarginal receiving the other.

The larvæ of the first, when full grown, measures about two-thirds of an inch in length, and one sixth of an inch in diameter, being of firm fleshy consistency, its colour opaque-white, each successive segment presenting an overlapping margin; it is nearly of equal thickness throughout, with a slight distension about the thoracical region, somewhat flattened beneath, and having the posterior margin of each segment below vaulted and hollow.

* See Kirby, Mon. Ap. Angl. 1, p. 90.

These larvæ are found occupying spacious elongate-oval cells, in galleries containing a series of such receptacles, from which the entire pith has been removed; with intermediate spaces of varying dimensions, partly filled with mud and partly with compressed particles of pith in sectional divisions; each cell being first securely closed by a well-connected convex top of firm pergameous consistency, followed by a small portion of black mud.

The store provided by the parent-insect, judging from the remains occasionally found about the cells, consists apparently of some small yellow-headed larvæ, which Mr. Westwood considers to be Coleopterous, and probably to belong to some species of *Curculionidæ*; after consuming which, the full-fed larva remains as usual during a considerable period in an inert state, assuming the condition of a fully-developed pupa a few weeks only previously to its final metamorphosis towards the middle or end of June.

These pupæ are endowed with the singular faculty of executing a rotary motion when disturbed, by bringing the apex of the abdomen into play around the bottom of the cells, performing these revolutions for a number of times in rapid succession, the direction being occasionally reversed. A similar proceeding on the part of a species of *Ichneumon* (hence termed *gyrator*) is described by MM. Dufour and Perris in the Annales of the French Entomological Society.*

The perfect insect effects its exit by gnawing a circular aperture through the side of the briar, for which operation its powerful serrate mandibles are well adapted.

The dark brown corneous case of a species of *Chrysis* is not unfrequently found in the cells, closely enveloped in a thin tissue covering of its own.

Of the second species males alone were obtained from a briar which had been confounded with others occupied by the larvæ of *R. Eumenoides*. With these, however, I have not hesitated to associate a female, possessing all the characters of the genus which I captured, flying along a sandy road, another having subsequently been found among a miscellaneous collection of briars; and, unless properly referred to this species, the latter would constitute a third.

* Vol. ix, p. 43, 1840.

DESCRIPTION OF THE PLATES.

PLATE V.

Fig. 3. *Pseudomeria Græca*, ♀.

3a, front view of head; 3b, under side of do.; 3c, maxilla; 3d, labium; 3e, antenna; 3f, wings; 3g, foreleg.

Fig. 4. Briar-cells of *Raphiglossa Eumenoides*.

† Convex top of cell, consisting of a firm well-connected pergameneous cap.

* Interior of cell.

‡ Concave lower extremity of ditto, resting on successive layers of comminuted particles of pith (**) and black earth (††) in distinct compartments; the former being limited in some instances to mere sectional divisions at varying intervals.

PLATE VI.

Fig. 1. *Myrmosa nigriceps*, ♂.

1a, mandibles; 1b, antenna; 1c, maxilla; 1d, labium; 1e, anterior tarsus; 1f, apex of abdomen seen in profile; 1g, anal appendages as seen from above; 1h, intermediate ditto. ditto.

Fig. 2. *Raphiglossa Odyneroides*, ♂.

2a, under side of head, showing the labium and maxillæ united as when at rest, and projecting backwards beneath the thorax like a needle; 2b, mandible; 2c, antenna of male; 2d, maxilla; 2e, labium.

Fig. 3. *Raphiglossa Odyneroides*, ♀.

3a, antenna of ditto.

Fig. 4. *Raphiglossa Eumenoides*, ♀.

4a, the same seen in profile of the natural size; 4b, labrum; 4c, maxilla; 4d, labium; 4e, antenna of male; 4f, ditto, of female; 4g, anterior tarsus.